

PATENT SPECIFICATION

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DRAWINGS ATTACHED

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(54) TRENCH COVER

- (71) I, OSWALD BURGESS, of 21, Sandringham Avenue, Downend, Bristol, A British Subject, do hereby declare the invention, for which I pray that a patent may be granted to me, and the method by which it is to be performed, to be particularly described in and by the following statement:—
- This invention relates to trench covers. It is sometimes necessary for the service industries to dig a trench across a road for the purpose of laying pipes or cables. To reduce the obstruction to road traffic, the usual practice is either to do the operation in two stages, i.e. digging the trench in halves, or to lay boiler plate across the trench to enable road traffic to pass over it. Similarly, a trench sometimes has to be dug along the length of a road where it can cause problems, e.g. by obstructing garage entrances and factory hauling ways; here again the obstructive parts of the trench are often covered with boiler plate.
- Covering a trench with boiler plate is not always satisfactory since the plate has to be of sufficient thickness not to bend under heavy loads, which means that it has to be very heavy. Also there is a danger of the plate moving out of position with traffic vibration and movement, and of the sides of the trench collapsing.
- According to the present invention, a trench cover comprises a cover plate for bridging a trench, a pair of side plates depending from the underside of the cover plate and attached thereto in a manner permitting relative movement of the side plates towards and away from one another, and means for forcing the side plates apart so as to contact the sides of the trench and support them against collapse.
- One of the side plates may be slidably attached to the cover plate, while the other may be welded to it. The means for forcing the side plates apart is preferably a screw jack. The cover plate may be convex upwards.
- In use, the trench cover is fitted so that
- the top cover plate bridges a trench, allowing road traffic to cross it, the weight of vehicles being taken through the cover plate to the road surface on either side of the trench.
- It is found that the action of the side plates, in supporting the sides of the trench against collapse, enables the cover plate to carry a heavier load than it could safely support without the side plates. The cover plate is effectively located over the trench and cannot move out of position with traffic vibration. By using a top-cover plate and screw jack of sufficient length, the trench cover can be adjusted to suit trenches of a variety of widths.
- The invention may be performed in various ways and one embodiment of it will now be described by way of example and with reference to the accompanying drawing, which is a vertical sectional view through a trench showing in elevation a trench cover in accordance with the invention.
- The trench cover comprises an upwardly convex top cover plate *a*, constructed as a metal fabrication. Two side plates *b*, *c*, are attached to the underside of the top cover plate *a* so as to depend substantially vertically from it. In this embodiment, only one side plate (*c*) is movable, the other side plate *b* being fixed. More specifically, side plate *b* is welded to the underside of the cover plate *a* at a position spaced somewhat inwardly from one edge of the cover plate. The moving side plate *c* which is stiffened by side flanges (as is the fixed side plate *b*) is slidably attached to the underside of cover plate *a* inwardly from the other edge. In use, the two edges rest on the road surface *e* on opposite sides of the trench, as shown.
- A screw jack *d* acts between the side plates *b*, *c* to force them apart and so to press them against the sides *f* of the trench. As can be seen from the drawing, a fixed tubular part of the jack *d* is secured to the fixed side plate *b*, while an inner screw-threaded part is secured to the slidable side

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plate *c*, and a rotatable nut part threaded on the inner part bears on the end of the tubular part and carries a short operating handle *g*.

WHAT I CLAIM IS:—

- 5 1. A trench cover comprising a top cover plate for bridging a trench, a pair of side plates depending from the underside of the cover plate and attached thereto in a manner permitting relative movement of the side
10 plates towards and away from one another, and means for forcing the side plates apart so as to contact the sides of the trench and support them against collapse.
15 2. A trench cover according to claim 1, wherein one of the side plates is slidably attached to the cover plate.
3. A trench cover according to claim 2,

wherein the other side plate is welded to the cover plate.

4. A trench cover according to any one 20 of the preceding claims, wherein the means for forcing the side plates apart is a screw jack.

5. A trench cover according to any one of the preceding claims, wherein the cover plate 25 is convex upwardly.

6. A trench cover substantially as hereinbefore described with reference to the accompanying drawings.

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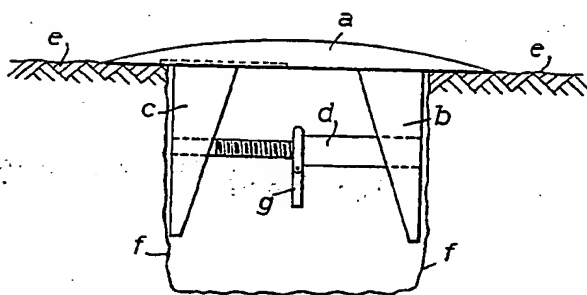
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COMPLETE SPECIFICATION

1 SHEET

*This drawing is a reproduction of
the Original on a reduced scale*



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